

BERNOULLI'S THEOREM DEMONSTRATION (VENTURI)



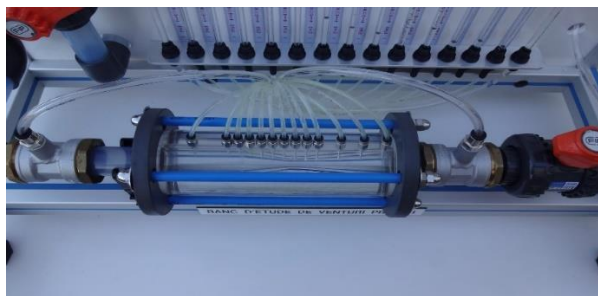
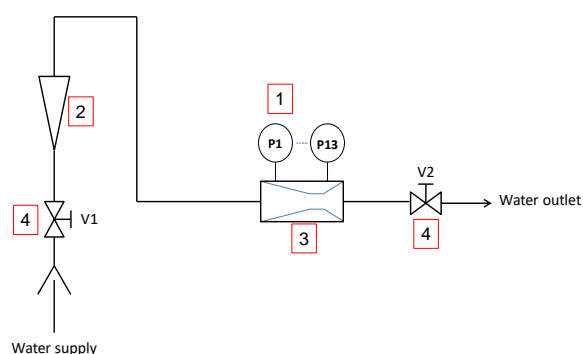
Experimental capabilities

- Plotting of the curves of pressure losses according to the flow rate
- Flow rate measurement by a venturi
- Determination of the characteristic coefficient of a venturi
- Study of the law of Bernoulli

Operating principle

The unit PBV011 allows the study of a depressing organ like a venturi. The different components of the bench allow to measure flows from the application of the Bernoulli theorem. For this purpose, water flows through the venturi, which is equipped with different pressure points distributed over its entire length and connected to a multi-manometer with a water column graduated on a panel. The bench is equipped with a precision flowmeter, which allows to study the relationship between the flow and the pressure losses on the venturi. La conception robuste de cet équipement le rend parfaitement adapté pour une utilisation en milieu scolaire. The robust design of this device makes it suitable for use in schools. The equipment is set up on an aluminium profile. The frame is also equipped with adjustable feet with rubber to avoid vibrations. This gives it great strength and a flexibility of integration into your laboratory. The manufacture of this equipment complies with the European standard for machinery manufacturing.

Illustrations



Technical details

- 1. 13 water column with transparent flexible plastics tubes (13 fitting taps)**
Scale 800 mm with air purge valve and air vent on the side
- 2. Flowmeter**
Scale 0-2000 L/h
- 3. Transparent Venturi in plexiglas**
Convergent inlet : diameter : 26,7 mm
Neckband : 13,9 mm
Convergent outlet : 26,7 mm
With pressure fitting taps distributed along the profile
(13 fitting taps)
- 4. Flow rate control valve (inlet) and the setting of the back pressure (output)**

Services required

- Water supply : 25L/min – 2 bars
- Water supply by hydraulic unit **UTL 050**
- Dimensions: (LxWxH mm): 900 x 800 x 950
- weight (Kg): 40

Documentation

- User's manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine